



# JOINT FIRE SCIENCE PROGRAM

## STUDYING PRESCRIBED FIRE IN RIPARIAN AREAS OF SOUTHWEST OREGON

### DESIGN AND SITE SELECTION HURDLES

Jeffrey T Stephens, *Bureau of Land Management, Medford, OR*



## DESIGN AND SITE SELECTION HURDLES

An Appetizer Of Things To Expect

### COORDINATION

- Multiagency and Non Governmental Organization study
- Multidiscipline study with numerous site selection criteria
- Varying agency and NGO policies

### FIELD

- Avoiding unsold and marked timber sales
- Finding watersheds that have not already had some treatment
- BLM O&C checkerboard lands with intertwined private land
- Locating streams that are not north facing, which will not burn

### MANAGEMENT SUPPORT

- Keeping management support with shrinking budgets
- Implementing a study with ongoing higher priority work
- Management emphasizing site selection to fit upcoming planning areas

### PUBLIC SUPPORT

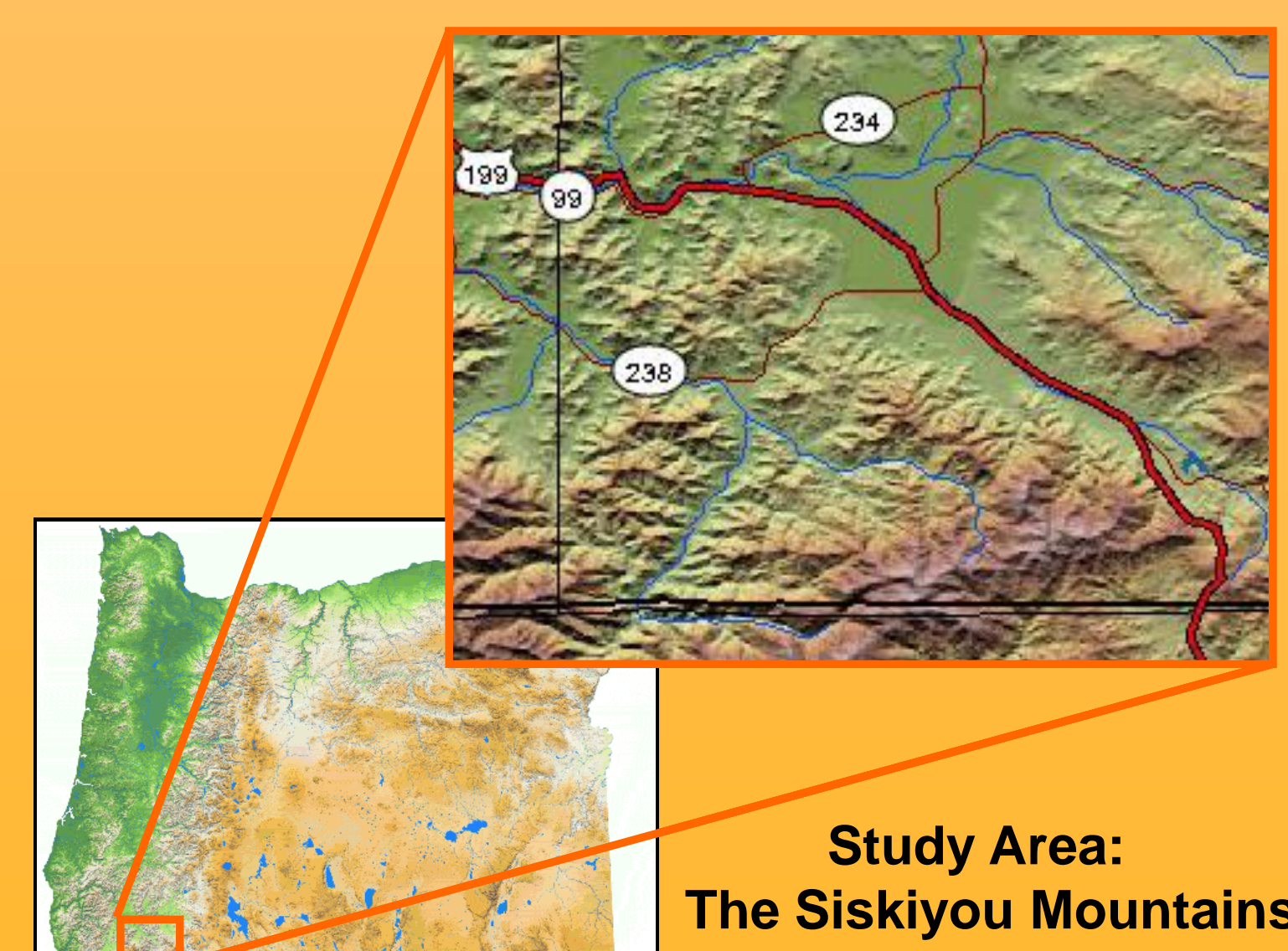
- Obtaining permission to access landlocked BLM watersheds
- Informing public about this project in order to minimize protests
- Keeping public support because of smoke intrusion

### NEPA and AGENCY POLICY

- Requires large in-kind contribution to pay for NEPA clearance
- Recent litigation requiring clearance for 2001 Survey and Manage
- Need to protect known special status species sites
- Owl Cores Owl Cores Owl Cores
- Avoiding areas that are proposed Area of Critical Environmental

### FIRE AND FUELS LOGISTICS

- Requires an enormous in-kind contribution by fuels group
- Narrow burning windows and acceptable smoke direction
- Requires large workforce to implement burning and contend
- Researchers must be qualified to be onsite during burning



Study Area:  
The Siskiyou Mountains

## BACKGROUND

In 2005 the Medford District BLM treated over 20,000 target acres for fuels reduction. These fuels reduction projects avoided riparian areas due to the threat of litigation and the perception that these areas are sensitive to any type of treatment. This has resulted in stringers of vegetated corridors along stream channels that are susceptible to fire (see figure 1), and may carry fire into untreated upland areas. Data is not available to justify either inclusion or exclusion of riparian areas in fuels treatment projects within southwest Oregon. The Applegate Valley has a high frequency, low intensity fire regime and historically these riparian areas have burned. The Medford BLM, in collaboration with USGS and Klamath Bird Observatory, submitted a successful Joint Fire Science Program proposal to study the effects of treatments in these riparian areas. With such a prominent fuels program, the group felt there would be ample areas to implement the study. Little did we know the hurdles to come. The study team has been in the process of site selection since early September, and faced a number of obstacles, including unsold timber sales, changing legislation and protected sites to name a few.

## OBJECTIVES

This project will seek to answer the following questions about how riparian areas respond to fuels treatment projects:

- 1.Can perennial and intermittent streams be treated without compromising riparian function?
2. Will biological diversity of riparian areas be maintained, lessened, or improved through fuels treatment?
3. Will reducing the fuel load in riparian corridors significantly reduce the threat of wildfire across the landscape?

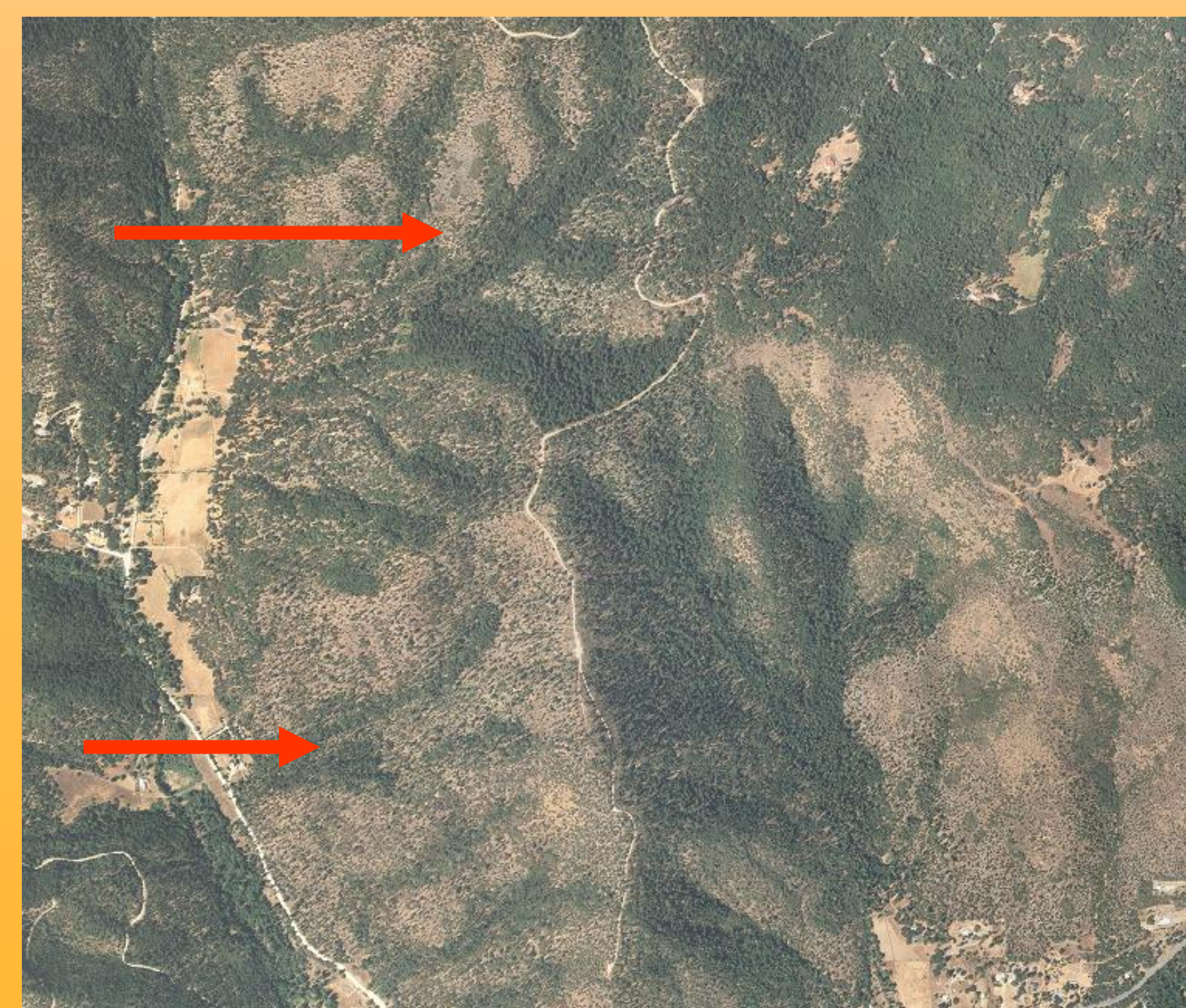


figure 1. Typical Riparian Buffers After Fuels Treatment

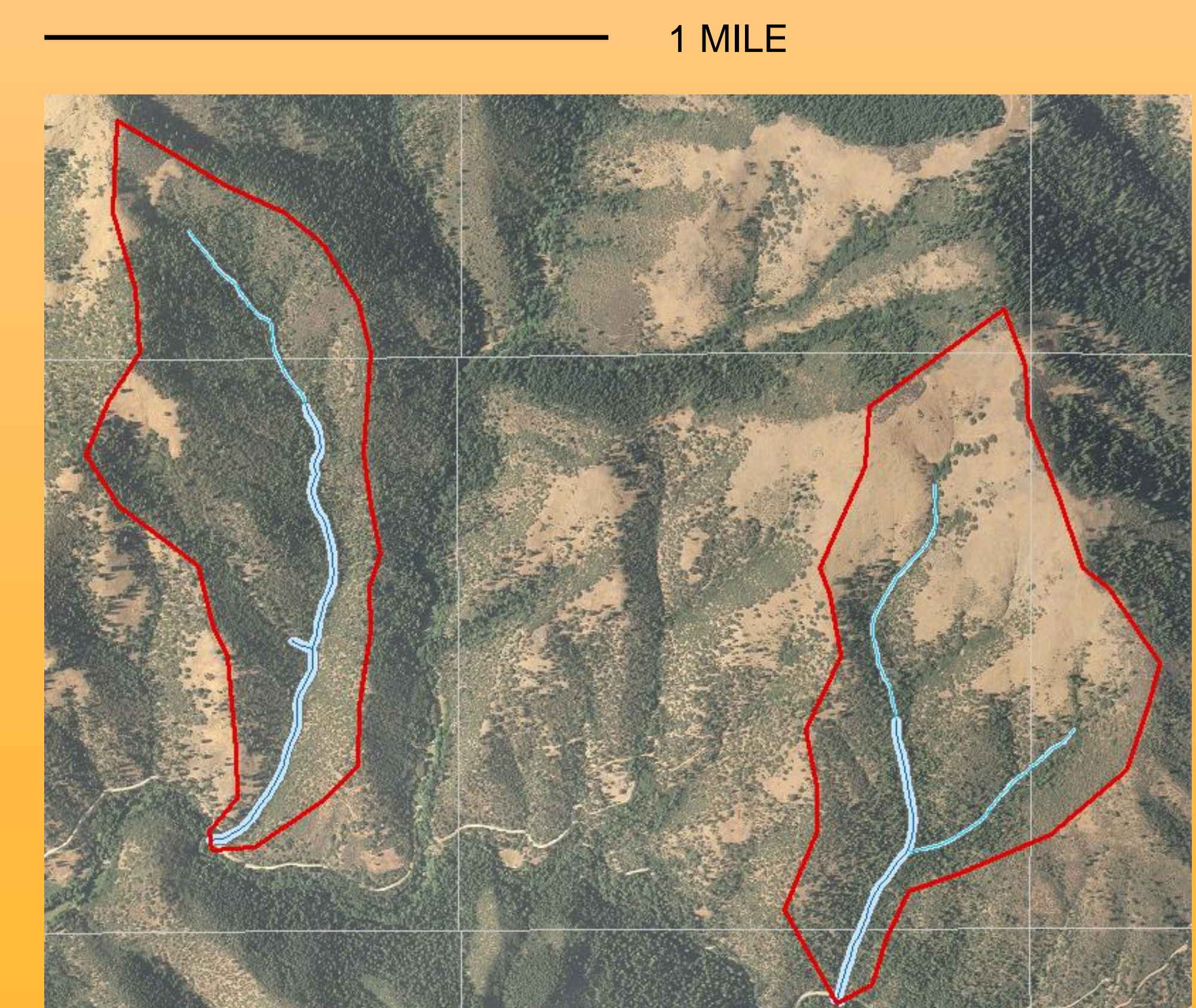
## COMPONENTS AND COLLABORATORS

- Herpetofauna.....Medford BLM and USGS FRES
- Avifauna.....Klamath Bird Observatory
- Hydrology.....Medford BLM
- Botany.....Medford BLM and SOU
- Fisheries.....Medford BLM
- Fuels/FIREMON.....Medford BLM

## BASIC METHODOLOGY

- Approximately 2000 acres have been identified for treatment
- Included are eight subbasins with perennial streams, intermittent reaches and dry draws
- There will be two types of treatments:
  1. Handpile burning followed up by an understory burn only in the uplands of four subbasins\*
  2. Same prescription as control but treatment will include the riparian areas in four subbasins

\* Since this study proposed looking at the effects of excluding riparian areas from fuel treatments, our control will be the standard prescription implemented by the Medford BLM Fire and Fuels Group.



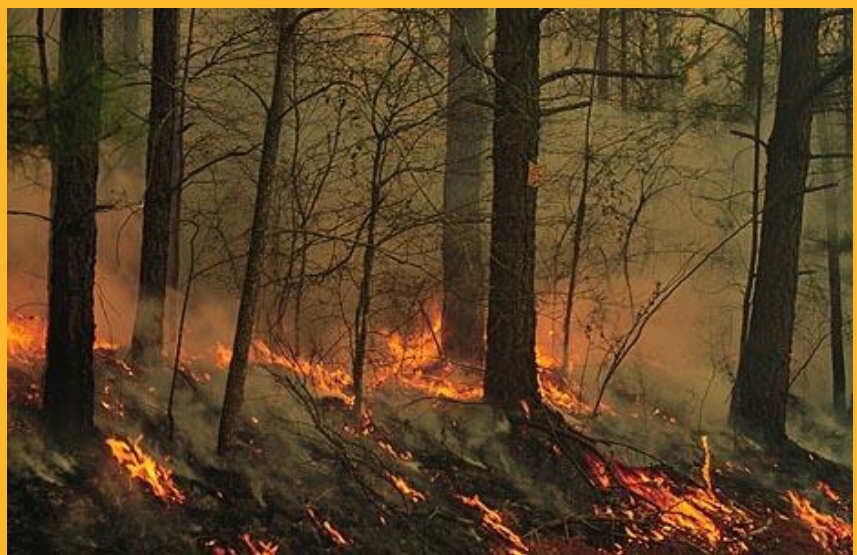
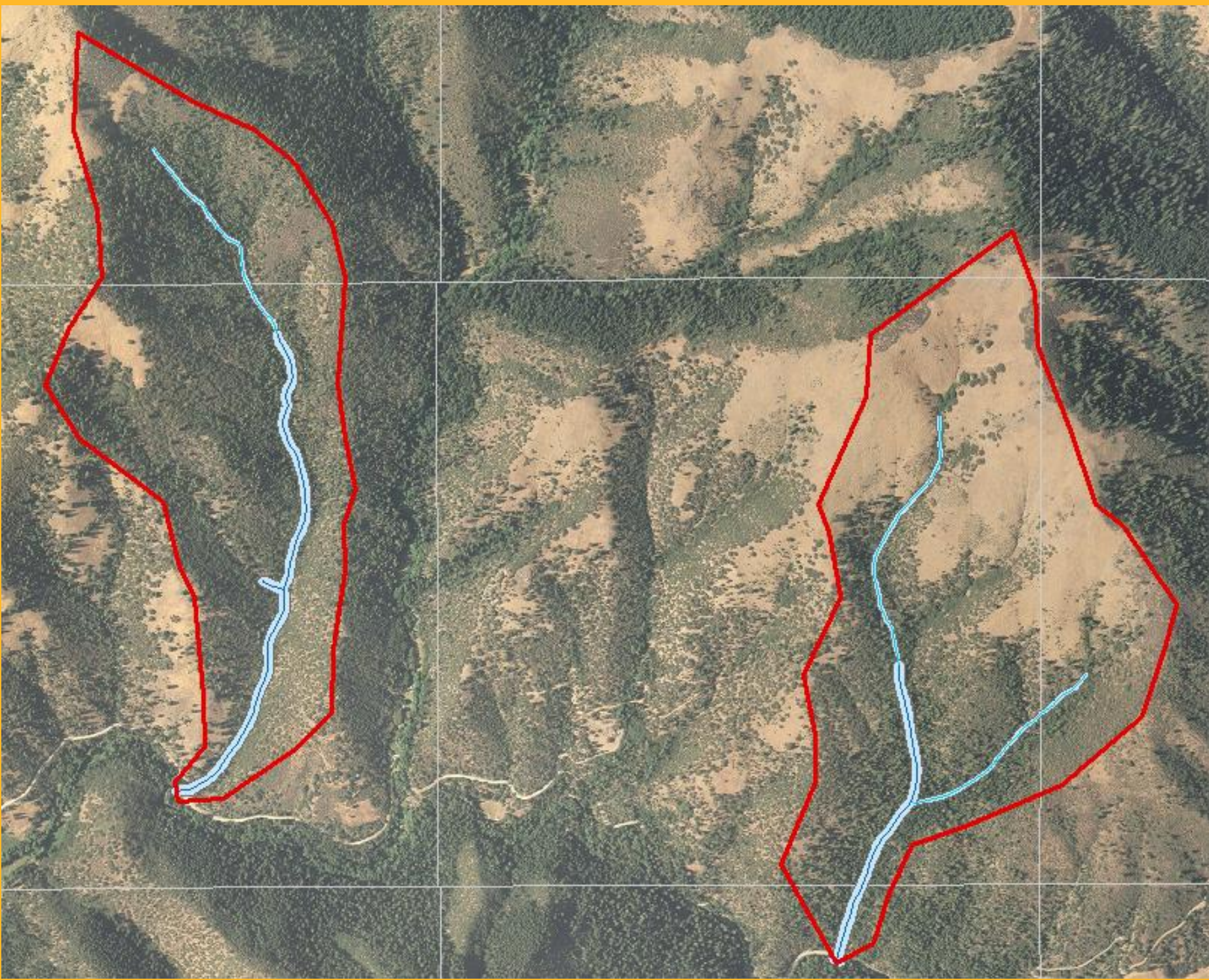
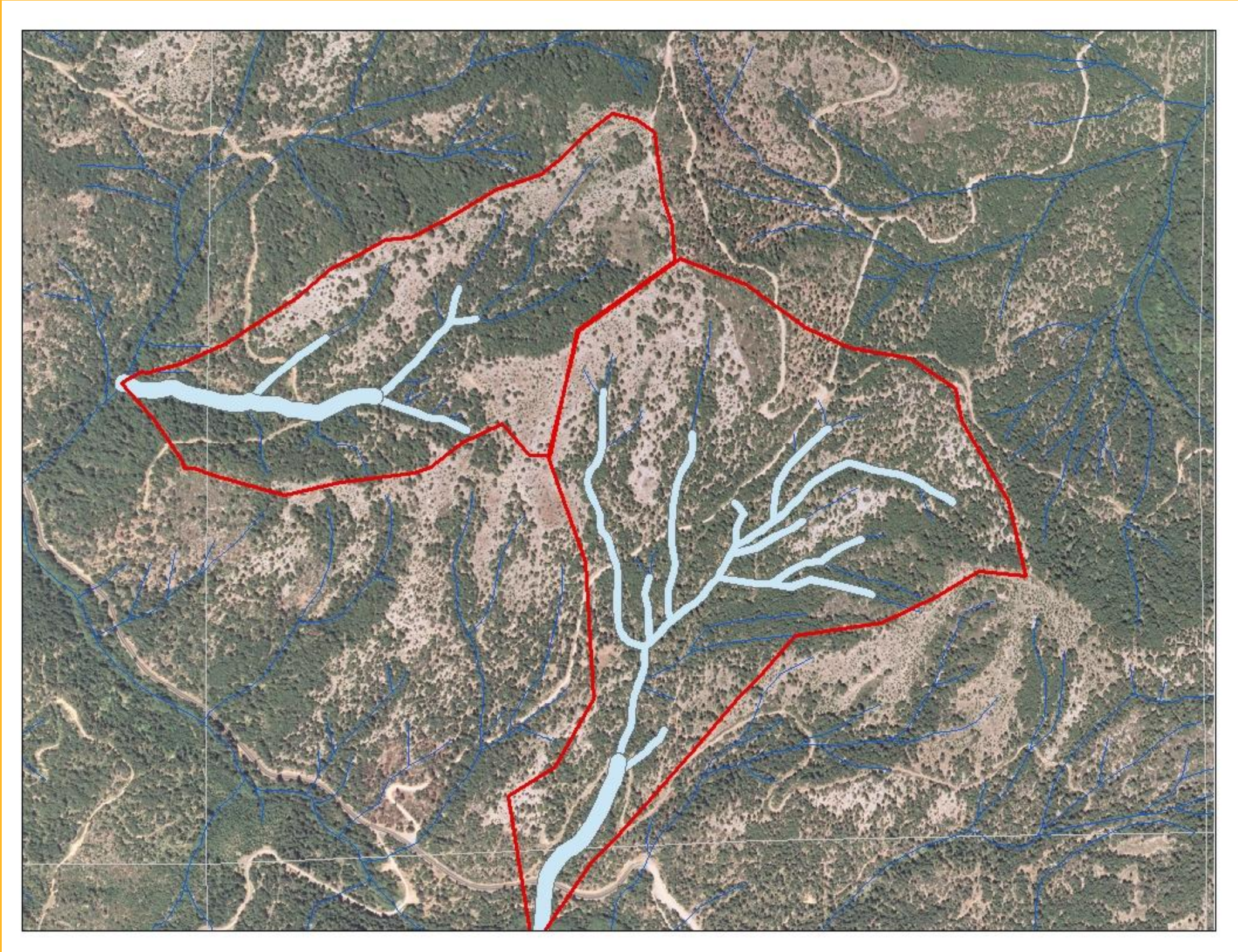
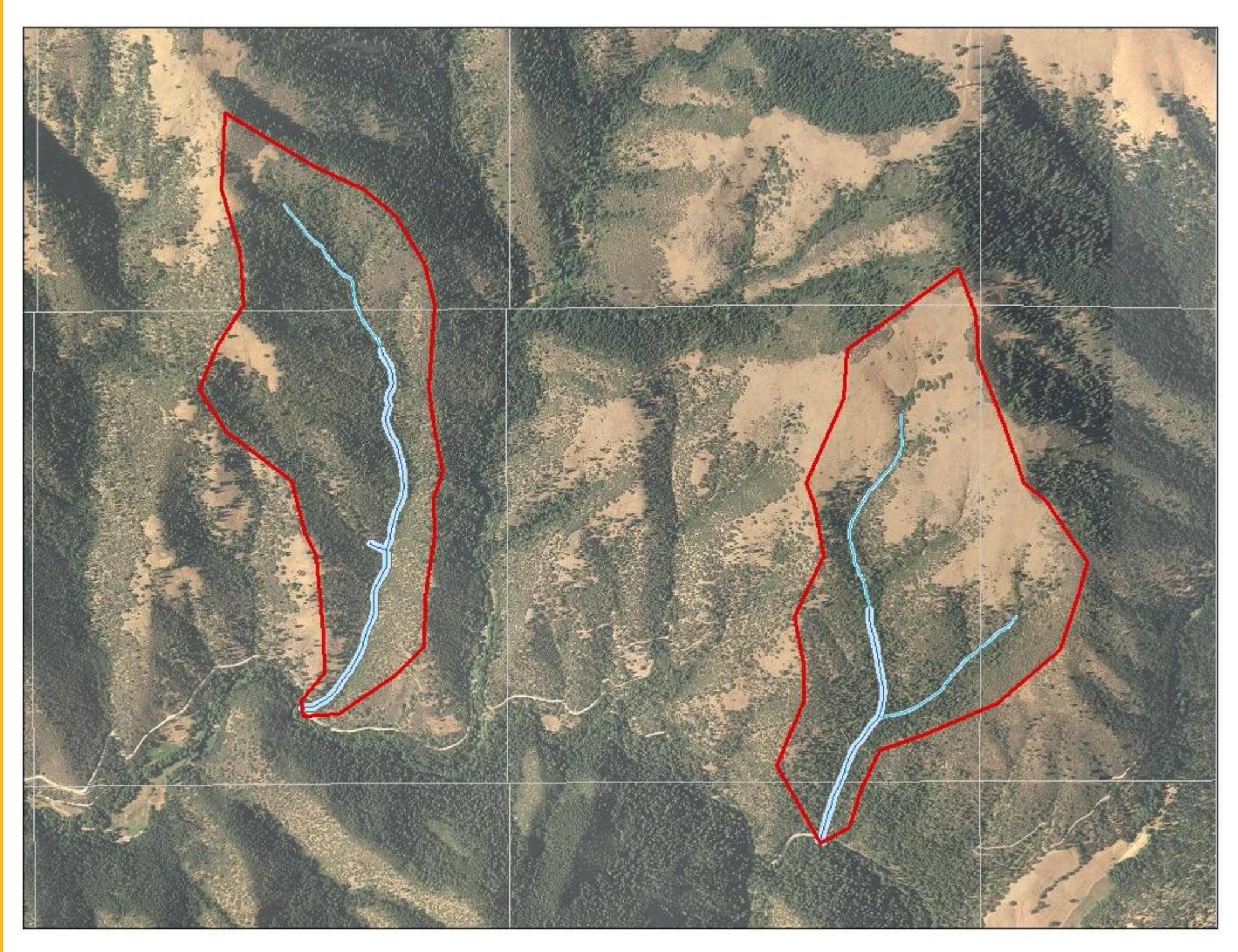
An Example Of Two Subbasins In The Little Applegate Valley



**figure 1. BLM Riparian Buffers Inside Fuels Treatments**



**Study Area: Siskiyou Mtns and the Applegate Valley**





Typical BLM Riparian Buffers Inside Fuels Treatments

